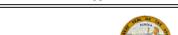
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-007317

Address: 333 Burma Road **Date Inspected:** 15-May-2009

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Sun Wei / Sun Bo **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: TOWER**

Summary of Items Observed:

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

Outside Yard at Vertical Mill:

The QA Inspector randomly observed that the vertical mill was idle and that no milling was being performed on Lift 1 South Tower Shaft. The mill was being set up to mill the flange on a section of the wind generator tower behind Lift 1 South on the opposite side of the vertical mill.

Heavy Equipment Shop Bay 11:

The QA Inspector randomly observed ZPMC welder Yang Mei Zhen ID 042195, utilizing the Submerged Arc Welding (SAW) Process with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2221-B-L2c-S-2 in the 1G (Flat Groove) Position, to weld the fill pass in the corner seam on Lift 2 West between Skin A and Skin B at Weld Joint (WJ) WSD1-TL6B/L-5A. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 660 amps, 32 volts with a travel speed of 530 millimeters (mm) per minute. Weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Shen Mei ID 041716, utilizing the SAW Process with ZPMC

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

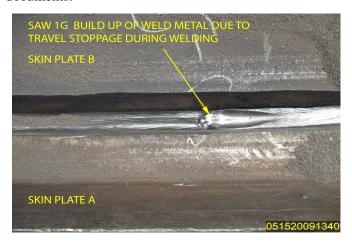
WPS WPS-B-T-2221-B-L2c-S-2 in the 1G (Flat Groove) Position, to weld the fill pass in the corner seam on Lift 2 West between Skin A and Skin B at Weld Joint (WJ) WSD1-TL6B/L-5A. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 680 amps, 32.8 volts with a travel speed of 540 mm per minute. The QA Inspector randomly observed the wire spool jam and an excess buildup of deposited weld metal when the travel ceased. Ms. Shen ground off the excess weld metal buildup and blended the area to the contour of the existing fill pass. Weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector performed a 100% Visual Inspection (VT) and 15% Magnetic Particle Testing (MT) of Lift South corner seam at WJ SSD1-TL5B/L-1A per ZPMC NDT Notification Sheet 003097. There appeared to be no indications and the QA Inspector accepted the above listed welds.

The QA Inspector randomly observed ZPMC welder Chen Hong Xia ID 040460, utilizing the SAW Process with ZPMC WPS WPS-B-T-2221-B-U3c-S-2 in the 1G (Flat Groove) Position, to weld the fill pass in the long seam between sections Lift 4 South Skin Plate B at WJ SSD1-FBSA4-1A/C-7B. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Zhang Ling ID 207746, utilizing the SAW Process with ZPMC WPS WPS-B-T-2221-B-U3c-S-2 in the 1G (Flat Groove) Position, to weld the fill pass in the long seam between sections Lift 4 South Skin Plate C at WJ SSD1-FCSA4-1A/C-61A. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod 13482570045, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

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Inspected By: Franco, Charlie Quality Assurance Inspector **Reviewed By:** Clifford, William QA Reviewer